ABSTRACT

The present invention provides a high-strength aluminum alloy extruded product exhibiting excellent corrosion resistance and secondary workability and suitably used as a structural material for transportation equipment such as automobiles, railroad vehicles, and aircrafts, and a method of manufacturing the same. The aluminum alloy extruded product has a composition containing 0.6 to 1.2% of Si, 0.8 to 1.3% of Mg, and 1.3 to 2.1% of Cu while satisfying the following conditional expressions (1), (2), (3), and (4),

$$3\% \leq Si\% + Mg\% + Cu\% \leq 4\% \quad (1)$$

$$Mg\% \leq 1.7 \times Si\% \quad (2)$$

$$Mg\% + Si\% \leq 2.7\% \quad (3)$$

$$Cu\%/2 \leq Mg\% \leq (Cu\%/2) + 0.6\% \quad (4)$$

and further containing 0.04 to 0.35% of Cr, and 0.05 % or less of Mn as an impurity, with the balance being aluminum and unavoidable impurities. The cross section of the extruded product has a recrystallization texture with an average grain size of 500 μm or less. The manufacturing method includes, when extruding the aluminum alloy into a solid product by using a solid die, extruding the aluminum alloy by using a solid die in which a bearing length (L) is 0.5 mm or more and the bearing length (L) and the thickness (T) of the solid product have a relationship expressed as "$L \leq 5T$", and, when extruding the aluminum alloy into a hollow product by using a porthole die or a bridge die, extruding the aluminum alloy while setting the ratio of the flow speed of the aluminum alloy in a non-joining section to the flow speed of the aluminum alloy in a joining section in a chamber, where the billet reunites after entering a port section of the die in divided flows and subsequently encircling a mandrel, at 1.5 or less.